

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/510,523
Source: PL/10
Date Processed by STIC: 10/16/04

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PCT

RAW SEQUENCE LISTING

DATE: 10/16/2004

PATENT APPLICATION: US/10/510,523

TIME: 09:06:06

Input Set : A:\MER132SEQ.TXT

Output Set: N:\CRF4\10162004\J510523.raw

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4 <110> APPLICANT: CARTER, Graham
5   CARR, Francis J.
7 <120> TITLE OF INVENTION: ANTI-IDIOTYPE ANTI-CEA ANTIBODY
8   MOLECULES AND METHODS
10 <130> FILE REFERENCE: MER-132
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/510,523
C--> 12 <141> CURRENT FILING DATE: 2004-10-07
12 <150> PRIOR APPLICATION NUMBER: PCT/03/03580
13 <151> PRIOR FILING DATE: 2003-04-07
15 <150> PRIOR APPLICATION NUMBER: EP 02007885.3
16 <151> PRIOR FILING DATE: 2002-04-09
18 <160> NUMBER OF SEQ ID NOS: 34
20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 117
24 <212> TYPE: PRT
25 <213> ORGANISM: Mus musculus
27 <400> SEQUENCE: 1
28 Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
29   1           5           10           15
30 Ser Val Lys Ile Ser Cys Lys Thr Ser Gly His Thr Phe Thr Glu Tyr
31   20           25           30
32 Asn Met Gln Trp Val Lys Gln Ser Leu Gly Gln Ser Leu Glu Trp Ile
33   35           40           45
34 Gly Gly Ile Asn Pro Asn Asn Val Gly Ser Ile Tyr Asn Gln Lys Phe
35   50           55           60
36 Arg Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr
37 65           70           75           80
38 Met Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
39   85           90           95
40 Ala Arg Gly Tyr Gly Asn Tyr Val Ala Tyr Trp Gly Gln Gly Thr Leu
41   100          105          110
42 Val Thr Val Ser Ala
43   115
46 <210> SEQ ID NO: 2
47 <211> LENGTH: 107
48 <212> TYPE: PRT
49 <213> ORGANISM: Mus musculus
51 <400> SEQUENCE: 2
52 Asp Ile Val Met Thr Gln Ser Gln Lys Phe Met Ser Thr Ser Val Gly
53   1           5           10           15
54 Asp Arg Val Ser Val Thr Cys Lys Ala Ser Gln Asn Val Asn Thr Asn
55   20           25           30

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56 Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Ser Leu Ile
57      35      40      45
58 Tyr Ser Ala Ser Tyr Arg Tyr Ser Gly Val Pro Asp Arg Phe Thr Gly
59      50      55      60
60 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
61 65      70      75      80
62 Glu Asp Leu Ala Glu Phe Phe Cys Gln Gln Tyr Asn Arg Tyr Pro Phe
63      85      90      95
64 Thr Phe Gly Gly Gly Thr Lys Leu Glu Leu Lys
65      100      105
68 <210> SEQ ID NO: 3
69 <211> LENGTH: 645
70 <212> TYPE: PRT
71 <213> ORGANISM: Homo sapiens
73 <400> SEQUENCE: 3
74 Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly Lys Glu
75 1      5      10      15
76 Val Leu Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Tyr Ser
77      20      25      30
78 Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile Gly Tyr
79      35      40      45
80 Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser Gly Arg
81      50      55      60
82 Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile Ile Gln
83 65      70      75      80
84 Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp Leu Val
85      85      90      95
86 Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr Pro Glu Leu Pro Lys
87      100      105      110
88 Pro Ser Ile Ser Ser Asn Asn Ser Lys Pro Val Glu Asp Lys Asp Ala
89      115      120      125
90 Val Ala Phe Thr Cys Glu Pro Glu Thr Gln Asp Ala Thr Tyr Leu Trp
91      130      135      140
92 Trp Val Asn Asn Gln Ser Leu Pro Val Ser Pro Arg Leu Gln Leu Ser
93 145      150      155      160
94 Asn Gly Asn Arg Thr Leu Thr Leu Phe Asn Val Thr Arg Asn Asp Thr
95      165      170      175
96 Ala Ser Tyr Lys Cys Glu Thr Gln Asn Pro Val Ser Ala Arg Arg Ser
97      180      185      190
98 Asp Ser Val Ile Leu Asn Val Leu Tyr Gly Pro Asp Ala Pro Thr Ile
99      195      200      205
100 Ser Pro Leu Asn Thr Ser Tyr Arg Ser Gly Glu Asn Leu Asn Leu Ser
101      210      215      220
102 Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser Trp Phe Val Asn
103 225      230      235      240
104 Gly Thr Phe Gln Gln Ser Thr Gln Glu Leu Phe Ile Pro Asn Ile Thr
105      245      250      255
106 Val Asn Asn Ser Gly Ser Tyr Thr Cys Gln Ala His Asn Ser Asp Thr
107      260      265      270

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108 Gly Leu Asn Arg Thr Thr Val Thr Thr Ile Thr Val Tyr Ala Glu Pro
109      275      280      285
110 Pro Lys Pro Phe Ile Thr Ser Asn Asn Ser Asn Pro Val Glu Asp Glu
111      290      295      300
112 Asp Ala Val Ala Leu Thr Cys Glu Pro Glu Ile Gln Asn Thr Thr Tyr
113 305      310      315      320
114 Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val Ser Pro Arg Leu Gln
115      325      330      335
116 Leu Ser Asn Asp Asn Arg Thr Leu Thr Leu Leu Ser Val Thr Arg Asn
117      340      345      350
118 Asp Val Gly Pro Tyr Glu Cys Gly Ile Gln Asn Glu Leu Ser Val Asp
119      355      360      365
120 His Ser Asp Pro Val Ile Leu Asn Val Leu Tyr Gly Pro Asp Asp Pro
121      370      375      380
122 Thr Ile Ser Pro Ser Tyr Thr Tyr Tyr Arg Pro Gly Val Asn Leu Ser
123 385      390      395      400
124 Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser Trp Leu
125      405      410      415
126 Ile Asp Gly Asn Ile Gln Gln His Thr Gln Glu Leu Phe Ile Ser Asn
127      420      425      430
128 Ile Thr Glu Lys Asn Ser Gly Leu Tyr Thr Cys Gln Ala Asn Asn Ser
129      435      440      445
130 Ala Ser Gly His Ser Arg Thr Thr Val Lys Thr Ile Thr Val Ser Ala
131      450      455      460
132 Glu Leu Pro Lys Pro Ser Ile Ser Ser Asn Asn Ser Lys Pro Val Glu
133 465      470      475      480
134 Asp Lys Asp Ala Val Ala Phe Thr Cys Glu Pro Glu Ala Gln Asn Thr
135      485      490      495
136 Thr Tyr Leu Trp Trp Val Asn Gly Gln Ser Leu Pro Val Ser Pro Arg
137      500      505      510
138 Leu Gln Leu Ser Asn Gly Asn Arg Thr Leu Thr Leu Phe Asn Val Thr
139      515      520      525
140 Arg Asn Asp Ala Arg Ala Tyr Val Cys Gly Ile Gln Asn Ser Val Ser
141      530      535      540
142 Ala Asn Arg Ser Asp Pro Val Thr Leu Asp Val Leu Tyr Gly Pro Asp
143 545      550      555      560
144 Thr Pro Ile Ile Ser Pro Pro Asp Ser Ser Tyr Leu Ser Gly Ala Asn
145      565      570      575
146 Leu Asn Leu Ser Cys His Ser Ala Ser Asn Pro Ser Pro Gln Tyr Ser
147      580      585      590
148 Trp Arg Ile Asn Gly Ile Pro Gln Gln His Thr Gln Val Leu Phe Ile
149      595      600      605
150 Ala Lys Ile Thr Pro Asn Asn Asn Gly Thr Tyr Ala Cys Phe Val Ser
151      610      615      620
152 Asn Leu Ala Thr Gly Arg Asn Asn Ser Ile Val Lys Ser Ile Thr Val
153 625      630      635      640
154 Ser Ala Ser Gly Thr
155      645
158 <210> SEQ ID NO: 4

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159 <211> LENGTH: 347

160 <212> TYPE: PRT

161 <213> ORGANISM: Homo sapiens

163 <400> SEQUENCE: 4

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164 Asp Cys Gly Leu Pro Pro Asp Val Pro Asn Ala Gln Pro Ala Leu Glu
165 1 5 10 15
166 Gly Arg Thr Ser Phe Pro Glu Asp Thr Val Ile Thr Tyr Lys Cys Glu
167 20 25 30
168 Glu Ser Phe Val Lys Ile Pro Gly Glu Lys Asp Ser Val Ile Cys Leu
169 35 40 45
170 Lys Gly Ser Gln Trp Ser Asp Ile Glu Glu Phe Cys Asn Arg Ser Cys
171 50 55 60
172 Glu Val Pro Thr Arg Leu Asn Ser Ala Ser Leu Lys Gln Pro Tyr Ile
173 65 70 75 80
174 Thr Gln Asn Tyr Phe Pro Val Gly Thr Val Val Glu Tyr Glu Cys Arg
175 85 90 95
176 Pro Gly Tyr Arg Arg Glu Pro Ser Leu Ser Pro Lys Leu Thr Cys Leu
177 100 105 110
178 Gln Asn Leu Lys Trp Ser Thr Ala Val Glu Phe Cys Lys Lys Lys Ser
179 115 120 125
180 Cys Pro Asn Pro Gly Glu Ile Arg Asn Gly Gln Ile Asp Val Pro Gly
181 130 135 140
182 Gly Ile Leu Phe Gly Ala Thr Ile Ser Phe Ser Cys Asn Thr Gly Tyr
183 145 150 155 160
184 Lys Leu Phe Gly Ser Thr Ser Ser Phe Cys Leu Ile Ser Gly Ser Ser
185 165 170 175
186 Val Gln Trp Ser Asp Pro Leu Pro Glu Cys Arg Glu Ile Tyr Cys Pro
187 180 185 190
188 Ala Pro Pro Gln Ile Asp Asn Gly Ile Ile Gln Gly Glu Arg Asp His
189 195 200 205
190 Tyr Gly Tyr Arg Gln Ser Val Thr Tyr Ala Cys Asn Lys Gly Phe Thr
191 210 215 220
192 Met Ile Gly Glu His Ser Ile Tyr Cys Thr Val Asn Asn Asp Glu Gly
193 225 230 235 240
194 Glu Trp Ser Gly Pro Pro Glu Cys Arg Gly Lys Ser Leu Thr Ser
195 245 250 255
196 Lys Val Pro Pro Thr Val Gln Lys Pro Thr Thr Val Asn Val Pro Thr
197 260 265 270
198 Thr Glu Val Ser Pro Thr Ser Gln Lys Thr Thr Thr Lys Thr Thr Thr
199 275 280 285
200 Pro Asn Ala Gln Ala Thr Arg Ser Thr Pro Val Ser Arg Thr Thr Lys
201 290 295 300
202 His Phe His Glu Thr Thr Pro Asn Lys Gly Ser Gly Thr Thr Ser Gly
203 305 310 315 320
204 Thr Thr Arg Leu Leu Ser Gly His Thr Cys Phe Thr Leu Thr Gly Leu
205 325 330 335
206 Leu Gly Thr Leu Val Thr Met Gly Leu Leu Thr
207 340 345
210 <210> SEQ ID NO: 5

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211 <211> LENGTH: 17
212 <212> TYPE: PRT
213 <213> ORGANISM: Mus musculus
215 <400> SEQUENCE: 5
216 Gly Ile Asn Pro Asn Asn Val Gly Ser Ile Tyr Asn Gln Lys Phe Arg
217 1 5 10 15
218 Gly
222 <210> SEQ ID NO: 6
223 <211> LENGTH: 8
224 <212> TYPE: PRT
225 <213> ORGANISM: Mus musculus
227 <400> SEQUENCE: 6
228 Gly Tyr Gly Asn Tyr Val Ala Tyr
229 1 5
232 <210> SEQ ID NO: 7
233 <211> LENGTH: 10
234 <212> TYPE: PRT
235 <213> ORGANISM: Homo sapiens
237 <400> SEQUENCE: 7
238 Thr Leu Leu Ser Val Thr Arg Asn Asp Val
239 1 5 10
242 <210> SEQ ID NO: 8
243 <211> LENGTH: 9
244 <212> TYPE: PRT
245 <213> ORGANISM: Homo sapiens
247 <400> SEQUENCE: 8
248 Tyr Leu Ser Gly Ala Asn Leu Asn Leu
249 1 5
252 <210> SEQ ID NO: 9
253 <211> LENGTH: 117
254 <212> TYPE: PRT
255 <213> ORGANISM: Artificial Sequence
257 <220> FEATURE:
258 <223> OTHER INFORMATION: modified heavy chain variable region of murine
259 antibody
261 <400> SEQUENCE: 9
262 Glu Val Gln Leu Gln Ser Gly Pro Glu Thr Gly Lys Pro Gly Ala
263 1 5 10 15
264 Ser Gly Lys Met Ser Cys Lys Thr Ser Gly His Thr Ser Thr Glu His
265 20 25 30
266 Asn Gly Gln Trp Ala Lys Gln Ser Pro Gly Gln Ser Leu Glu Trp Ile
267 35 40 45
268 Gly Gly Ile Asn Pro Asn Asn Val Gly Ser Ile Tyr Asn Gln Lys Phe
269 50 55 60
270 Arg Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala His
271 65 70 75 80
272 Met Glu Leu Arg Ser Pro Thr Ser Glu Asp Thr Ala Val Tyr Tyr Cys
273 85 90 95
274 Ala Arg Gly Tyr Gly Asn Tyr Val Ala Tyr Trp Gly Gln Gly Thr Leu

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VERIFICATION SUMMARY

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DATE: 10/16/2004

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Input Set : A:\MER132SEQ.TXT

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L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date